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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,310	06/01/2005	Daniel Fages	NY-GRYN 223-US	1258

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EXAMINER

LAFORGIA, CHRISTIAN A

ART UNIT PAPER NUMBER

2131

MAIL DATE DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/537,310

Applicant(s)

FAGES ET AL.

Examiner

Christian La Forgia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. The amendment filed 28 June 2007 has been noted and made of record.
2. Claims 1-9 have been cancelled as per Applicant's request.
3. Claims 10-22 have been presented for examination.

Response to Arguments

4. Applicant's arguments, see page 6, filed 28 June 2007, with respect to the specification have been fully considered and are persuasive. The objection of specification has been withdrawn.
5. Applicant's amendments, filed 28 June 2007, with respect to the independent claims 10 and 15 have been fully considered and are persuasive. The 35 U.S.C. 1122, 2nd rejection of claims 10-22 has been withdrawn.
6. Applicant's arguments with respect to the prior art rejection of claims 10-22 have been considered but are moot in view of the new grounds of rejection.
7. See further rejections that follow

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 10, 11, 15-17 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Application Publication No. 2003/0014662 A1 to Gupta et al., hereinafter Gupta.

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10. As per claim 10, Gupta teaches a method for securing logical access to information and/or computing resources in a group of computer equipment with minimum access delay, said group of computer equipment exchanging data with a computer telecommunication network via an access device comprising an operating system, and said data comprising transported data that conform to at least one application protocol, as well as transport data, said method comprising the steps of:

defining a finite-state machine for each application protocol (Figures 2 [element 66], 5 [block 66], 9 [block 64], paragraphs 0086, 0089, 0091, i.e. state machine for application layer protocols);

modeling each finite-state machine in the form of a model (Figures 2 [element 67], 7, 10, paragraphs 0107, 0109-0110);

generating from each model (Figures 2 [element 67], 7, 10, paragraphs 0107, 0109-0110), an analysis module for each application protocol by means of an interpreter (Figures 9 [blocks 63, 64], 12 [Fixed-field detector, Protocol Parsing State Machine], paragraphs 0089, 0091, 0092, i.e. protocol parser specifies the parsing of application layer protocols); and

filtering (Figure 9 [blocks 54, 55], 12 [Attack Detector, Response Module], paragraph 0104, i.e. protocol parser detects SSIDs and passes them to the attack detector) the transported data in said operating system by means of said analysis modules (Figures 9 [blocks 63, 64], 12 [Fixed-field detector, Protocol Parsing State Machine], paragraphs 0089, 0091, 0092, i.e. protocol parser specifies the parsing of application layer protocols).

11. Regarding claim 11, Gupta teaches the step of verifying the conformity of said

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transported data with the application protocols involved by means of said analysis modules (paragraphs 0083, 0085, 0093, 0103-0104, i.e. checking data locations, examining fields in the packet header and fixed locations within the packet payload).

12. As per claim 15, Gupta teaches an access device for securing logical access to information and/or computing resources in a group of computer equipment with minimum access delay, said group of computer equipment exchanging data with a computer telecommunication network via said access device, and said data comprising transported data that conform to at least one application protocol, as well as transport data, said access device comprising:

an operating system (Figures 4A [Linux System], 16 [Windows, Solaris], paragraph 0162) that includes an appropriate analysis module for each application protocol (Figures 9 [blocks 63, 64], 12 [Fixed-field detector, Protocol Parsing State Machine], paragraphs 0089, 0091, 0092, i.e. protocol parser specifies the parsing of application layer protocols);

a filtering module for filtering (Figure 9 [blocks 54, 55], 12 [Attack Detector, Response Module]) said transported data in said operating system by means of said analysis modules (paragraph 0104, i.e. protocol parser detects SSIDs and passes them to the attack detector).

13. Regarding claim 16, Gupta teaches wherein each analysis module (Figures 9 [blocks 63, 64], 12 [Fixed-field detector, Protocol Parsing State Machine]) implements a finite-state machine representing a given application protocol (paragraphs 0089, 0091, i.e. protocol parser is implemented using a state machine to parse application layer protocols).

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14. Regarding claim 17, Gupta teaches wherein said analysis modules (Figure 9 [blocks 63, 64]) comprises a first information processing module for verifying the conformity of said transported data with said application protocols involved (paragraphs 0083, 0085, 0093, 0103-0104, i.e. checking data locations, examining fields in the packet header and fixed locations within the packet payload).

15. With regards to claim 20, Gupta teaches wherein said analysis modules (Figure 9 [blocks 63, 64]) comprises a first information processing module for verifying the conformity of said transported data with said application protocols involved (paragraphs 0083, 0085, 0093, 0103-0104, i.e. checking data locations, examining fields in the packet header and fixed locations within the packet payload).

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claims 12-14, 18, 19, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gupta in view of U.S. Patent No. 7,237,258 B1 to Pantuso et al., hereinafter Pantuso.

18. Regarding claims 12, 13, 13, 21, and 22, Gupta does not teach the step of restricting the capabilities offered by an application protocol by means of said analysis module.

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19. Pantuso teaches the firewall restricting predetermined application level protocols, such as e-mail and FTP applications (column 5, lines 44-54).

20. It would have been obvious to one of ordinary skill in the art at the time the invention was made to restrict the capabilities offered by an application protocol by means of said analysis module, since Pantuso states at column 2, lines 47-57 that restricting the capabilities offered by application protocols provides a more secure environment for management purposes by granting more access to trusted applications.

21. Concerning claims 14 and 19, Gupta teaches the step of parameterizing said analysis modules in accordance with predetermined restrictions (paragraphs 0094, i.e. tokens).

22. Pantuso discloses a user configuring a firewall or filtering component (column 1, line 59 to column 2, line 5).

Conclusion

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

24. The following patents are cited to further show the state of the art with respect to filtering application layer protocols using state machines, such as:

United States Patent No. 6,349,405 B1 to Welfeld, which is cited to show classifying packets using a state machine.

United States Patent No. 7,234,168 B2 to Gupta et al., which is cited to show a patent related to the application that was used to reject the claims of the instant application.

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United States Patent Application Publication No. 2002/0010800 A1 to Riley, which is cited to show a stateful multilayer firewall that filters packets at the application layer (i.e. paragraph 0070).

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian La Forgia whose telephone number is (571) 272-3792. The examiner can normally be reached on Monday thru Thursday 7-5.

26. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

27. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christian LaForgia
Patent Examiner
Art Unit 2131



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